



VOSH PROGRAM DIRECTIVE: 12-252

ISSUED: October 15, 2007

SUBJECT: 16 VAC 25-75, Virginia Unique General Industry Standard for Telecommunications, General, Approach Distances

A. Purpose.

This directive transmits to field personnel 16 VAC 25-75, General Industry Standard for Telecommunications, General, Approach Distances, which replaces the federal identical subparagraph §1910.268(b)(7)(i), along with guidance on application and interpretation of the unique standard.

This Program Directive is an internal guideline, not a statutory or regulatory rule, and is intended to provide instructions to VOSH personnel regarding internal operation of the Virginia Occupational Safety and Health Program and is solely for the benefit of the program. This document is not subject to the Virginia Register Act or the Administrative Process Act; it does not have general application and is not being enforced as having the force of law.

B. Scope.

This directive applies to all VOSH personnel.

C. References.

- 1) Virginia Administrative Code: 16 VAC 25-75, General Industry Standard for Telecommunications, General, Approach Distances.
- 2) 16 VAC 25-90-1910.268, Telecommunications (Federal-identical).

D. Cancellation.

Not applicable.

E. Action.

Directors and Managers shall ensure that field personnel understand and comply with the unique Virginia Standard 16 VAC 25-75, General Industry Standard for Telecommunications, General, Approach Distances, §1910.268(b)(7)(i), and the interpretive guidance provided in this directive.

F. Effective Date.

October 15, 2007.

G. Expiration Date.

Not Applicable.

H. Background.

This amendment is a result of a VOSH investigation of a fatal accident. A telecommunication employee was fatally electrocuted when he apparently touched an uninsulated 7200-volt power line with his body. The victim had not put insulating material around the power line, nor was he wearing properly rated insulating gloves. Although the victim was not in compliance with any part of federal identical §1910.268(b)(7), the discrepancy between the two federal requirements at §§1910.268(b)(7)(i) and 1910.269(l)(2)(i) was identified during the legal review of the case.

The federal identical and less stringent, Telecommunications Standard language in §1910.268(b)(7)(i) specifies that the wearing of protective gloves will qualify as insulation for any live electrical part in the area within the approach distances where the employee is working. Under the federal identical standard, the employee can be legally exposed to uninsulated live electrical parts in his work area when working inside the approach distance, but only actually be protected from touching them with his hands (and possibly forearms) through the use of gloves. The federal identical standard requires no additional temporary blanketing or other means of insulation for nearby high voltage wires which might be inadvertently touched by other body parts of the employee while working inside the approach distances.

In comparison, the Electric Power Generation, Transmission, and Distribution standard, §1910.269, specifies that the wearing of protective gloves and sleeves only qualifies as insulation for the live electrical part upon which the employee is actually working. All other live or "hot" electrical parts and power lines in the work area, which the employee could contact during normal work activities and while working inside the approach distances, are required to be insulated to avoid an employee accidentally or inadvertently contacting an energized part or power line with an uninsulated part of his body, or other conductive object(s).

Making §1910.268(b)(7)(i), General Industry Standard for Telecommunications, General, Approach Distances and §1910.269(l)(2)(i), General Industry Standard for Electric Power Generation Transmission and Distribution identical provides safety protections for telecommunication workers equal to that already afforded general industry electrical transmission workers and more recently afforded by the Safety and Health Codes Board to Virginia construction industry workers engaged in similar activities.

During a regular Safety and Health Codes Board meeting held on December 14, 2004, the Department requested authorization from the Board to initiate the regulatory process by filing a Notice of Intended Regulatory Action (NOIRA), pursuant to Virginia Code §2.2-4007, to amend §1910.268(b)(7)(i), thereby making it identical to its general industry standard counterpart, §1910.269(l)(2)(i), General Industry Standard for Electric Power Generation Transmission and Distribution.

No comments were received on the proposed regulation during the comment periods. On March 16, 2006, prior to publication of the proposed regulation, Department Staff met with representatives of the telecommunication industry, Dominion Virginia Power and the Department of Planning and Budget to discuss issues related to the proposal. A summary of this meeting was entered into the administrative rulemaking record at the October 26, 2006, public hearing for the proposed regulation. During this public hearing, the Board received two comments on the proposed regulation. On March 16, 2006, prior to publication of the proposed regulation, Department staff met with representatives of the telecommunications industry, Dominion Virginia Power and the Department of Planning and Budget to discuss issues related to the proposal. A summary of this meeting was entered into the administrative rulemaking record at the October 26, 2006, public hearing for the proposed regulation.

On December 6, 2006, the Safety and Health Codes Board adopted the final version of this regulation which became effective on July 26, 2007.

I. Summary of Unique Standard.

This unique standard requires telecommunications employers to implement protective measures for its workers identical to those afforded general industry and construction workers under the Electrical Power Generation, Transmission and Distribution Standard, §1910.269. The final regulation clarifies that when an employee is wearing insulating gloves and/or sleeves, in accordance with 16 VAC 25-90-1910.269(1)(3), those insulating gloves or insulating gloves and sleeves will only be considered insulation of that part of the employee's extremities covered by the gloves and/or sleeves. If other parts of the employee's body or extremities are exposed to energized parts inside the minimum approach distances, additional protective measures, outlined in 16 VAC 25-75-1910.268(b)(7)(i), will have to be provided.

NOTE: The final amendment will not affect the minimum approach distances referenced in §1910.268(b)(7) and contained in Table R-2.

J. Application and Interpretation of Unique Standard.

During the public participation process for 16 VAC 25-75, General Industry Standard for Telecommunications, General, Approach Distances, §1910.268(b)(7)(i), four work activities were identified by telecommunications and power industry representatives where the proposed amendment could impact current business practices:

- Setting poles in power
- Work during storms or emergencies
- Currently required testing of street light brackets
- Placement of new cable through the use of silver strand wire
- Municipally owned poles and municipally owned or operated telecommunication systems

1. Setting Poles in Power.

Telecommunications representatives stated that while employees do not cross the R-2 distances, the poles that are being set can cross the R-2 distances. The poles are wrapped in insulation

material (blankets) prior to being set in the ground, and employees actually touch the pole at the base as it is being set, but employees wear insulated gloves. While it is being set, the top of the pole is blanketed. Once the pole is set and employees are installing Verizon equipment, the blankets under the neutral wire are removed so that the equipment can be installed (there is an approximate 40 inch clearance from the neutral line). Telecommunications employees do not breach the R-2 table while installing their equipment.

The neutral wire can possibly be subject to voltage in very limited circumstances such as a result of lightning or where a power line is down and laying on the neutral line (e.g., as the result of an accident or storm damage). Power Generation representatives stated that they do not consider the neutral wire to normally be an energized part, and did not see any safety reason to regularly blanket the neutral line. VOSH agreed with this assessment and concluded that current work practices would not need to be changed in response to the new unique standard.

2. Storms/Emergencies.

Telecommunications representatives said that during storms and emergencies they do no work until power company officials give clearance to them to work in an area. Cable representatives stated that they can run into exposure situations during storms and emergencies as well as in response to traffic accidents, tree falls, or to raise lines for houses under construction. Cable representatives confirmed that they coordinate with the power company and keep hands off until the power company inspects the damaged pole and gives clearance to proceed with work. VOSH informed the representatives for both industries that it follows the same approach as federal OSHA does during storms/emergencies by being in "consultation mode" for a set period of time after the event.

3. Street Light Brackets.

Telecommunications representatives stated that they are required by the Telecommunications Standard, 1910.268, to test certain street light brackets to determine if the brackets are energized under certain conditions. Under normal conditions, the brackets are not supposed to be energized. Testing must be done bare handed, but the tool used protects the worker from up to 20,000 volts. If the bracket is found to be hot, telecommunications employees leave it alone and report it to the power company. VOSH informed the representatives that it had concluded that current work practices would not need to be changed in response to the new unique standard.

4. Placement of new cables through use of silver strand line.

Telecommunications representatives stated that during the installation of new cables, a silver strand line is first strung between poles and tensioned "banjo tight" before the cables are installed. Because of gravity, there is a natural sag in the neutral line as it runs the distance between two poles, it can come inside the R-2 approach distances to the tensioned silver strand line. Cable representatives stated that they use Spanmaster and had the same issues with regard to the neutral line. VOSH informed the representatives that it had concluded that current work practices would not need to be changed in response to the new unique standard (see discussion above concerning neutral lines during the setting of poles).

5. Municipally owned poles and municipally owned or operated telecommunication systems.

Cable representatives related that municipalities that own or operate their own telecommunications systems may have installations that are in violation of R-2 approach distances. They noted that municipalities are installing fiber optic networks and recommended that VOSH contact the Virginia Municipal League (VML) and the Virginia Association of Counties (VACO). They also stated that they had responded to some incidents where localities had installations that got inside the R-2 approach distances. During the public participation process, VOSH contacted VML and VACO and requested they provide any comments or concerns with the proposed regulation. Neither VML nor VACO submitted any comments or concerns.

K. Citation Issuance.

Violations of the General Industry Standard for Telecommunications, General, Approach Distances, §1910.268(b)(7)(i) shall be listed on the citation as violations of 16 VAC 25-75 (plus the appropriate subsection).

L. IMIS Entry Coding.

Please review the attachment to this directive for the actual regulatory text of the Virginia Unique Standard, 16 VAC 25-75. Data on violations of this Virginia unique standard dealing with High Voltage in the Telecommunications Industry (HVTC) shall be entered into the IMIS database as follows:

<u>Part</u>	<u>Section</u>	<u>Paragraph</u>	<u>Subparagraph</u>
HVTC	0268	A	1
HVTC	0268	A	2
HVTC	0268	A	3

C. Ray Davenport
Commissioner

Attachment: 16 VAC 25-75-10. Virginia Unique General Industry Standard for Telecommunications, General, Approach Distances

Distribution: Commissioner of Labor and Industry
Assistant Commissioner – Programs
VOSH Directors and Managers
Cooperative Programs Director and Manager
VOSH Compliance and Cooperative Programs Staff
Legal Support and IMIS Staffs
OSHA Region III and Norfolk Area Offices

**16 VAC 25-75, Amendment to General Industry Standard for Telecommunications, General,
Approach Distance, Approach Distances**

As adopted by the
Safety and Health Codes Board

Date: December 6, 2006



VIRGINIA OCCUPATIONAL SAFETY AND HEALTH PROGRAM

VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY

Effective Date: July 26, 2007

16 VAC 25-75, Telecommunications, General, Approach Distances

16VAC25-75-10. General; approach distances.

- A. No employee shall be permitted to approach or take any conductive object closer to exposed energized parts than shown in subsection B (Table R-2) of this section unless:
 - 1. The employee is insulated or guarded from the energized parts (insulating gloves or insulating gloves and sleeves worn in accordance with 16VAC25-90-1910.269(1)(3) are only considered insulation of that part of the employee's extremities covered by the insulating gloves or insulating gloves and sleeves);
 - 2. The energized part is insulated or guarded from him and any other conductive object at a different potential; or
 - 3. The power conductors and equipment are deenergized and grounded.
- B. Approach distances to exposed energized overhead power lines and parts.

TABLE R-2.

Approach Distances to Exposed Energized Overhead Power Lines and Parts.

Voltage range (phase to phase, RMS)	Approach distance (inches)
300 V and less	(¹)
Over 300 V, not over 750 V	12
Over 750 V, not over 2 kV	18
Over 2 kV, not over 15 kV	24
Over 15 kV, not over 37 kV	36
Over 37 kV, not over 87.5 kV	42
Over 87.5 kV, not over 121 kV	48
Over 121 kV, not over 140 kV	54

(¹) Avoid contact.